



The occurrence of unfavorable thermal conditions on human health in central Europe and potential climate change impacts: An example from Cracow, Poland

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Year: 2009
Journal: Environmental Management. 44 (4): 766-775

Abstract:

Progressive global warming exerts strong influence on the lives and on the health of urban residents, many of who are weather sensitive people (meteoropaths). In the temperate zone, air temperature changes largely determine the seasonal oscillation of morbidity and mortality frequency. The present study analyzes the influence of air temperature on living conditions in central European urban areas, particularly Cracow (Poland), and examines this influence against the background of climate change. During the warmer months, there is a noticeable increase in the unfavorable occurrence of especially strong thermal stimuli (e.g., hot days) which can lead to overheating of the human organism. On the other hand, the increasing frequency of mild winters contributes to the appearance of weak and moderate thermal stimuli, which in the case of the former, is a negative phenomenon. Weak thermal stimuli are liable to make the human body oversensitive and, thus lose the ability to adapt if stronger thermal stimuli were to occur. Residents of large urban areas should be prepared for the possibility of dynamic weather changes and should take thermal variability into consideration with regards to spatial urban planning and socioeconomic activities.

Source: <http://dx.doi.org/10.1007/s00267-009-9357-x>

Resource Description

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Urban

Climate Change and Human Health Literature Portal

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Europe

European Region/Country: European Country

Other European Country : Poland

Health Impact:

specification of health effect or disease related to climate change exposure

Injury

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content